Synonymica about Tipulidae

#### C. R. Osten Sacken.

I have always thought that the synonymy concerning the species of Diptera has not, in many publications, been treated with the care which it requires. — An entomologist who adduces a synonymy is responsible for its exactness. When he borrows a synonymy from some other author he must verify it, and, in case he finds it acceptable, he must signify the fact of this verification to the reader, either in a direct statement, or by some conventional sign, as the addition of his name, or of his initials. It sometimes happens that the verification of an alleged synonym is, for the time, impossible (for instance, when it is based on the comparison by another entomologist of a rather inaccessible original type); in such a case the author who adopts it is, of course, not responsible, but in every case he must name his authority.

Such are, it seems to me, the common sense rules for the treatment of synonymy. Their strict observance not only promotes exactness, but facilitates for future students the task of verification.

In my Catalogue of North-American Diptera (1878) I have adopted the following rules (l. c. p. XLVIII):

- "1) An interrogation before a synonymy means that it is uncertain.
- "2) An exclamation(!) after a synonymy means that I have seen "the original type of the description. I have used this sign when—wever I deemed it necessary to inform the reader of that fact; but "the absence of that sign does not necessarily mean that "I have not seen the type.")

<sup>1)</sup> There is a great difference between the mere seeing of a type, and the recognizing in it something we have seen before. Haliday saw the type of *Tipula annulata* L. in the Linnaean collection, but never having seen the species before, he wrongly recognised in the type the *Linnabia nubeculosa* of Meigen.

.3) An authority for every synonymy is given after it, in brackets[]; whenever no authority is mentioned, my own is assumed." To § 3 I should perhaps have added the words: "whenever the

synonymy of an authority has been verified and adopted by me, my initials are added". As it is, in looking over my Catalogue, I am not always sure whether I have verified the synonymies introduced by me on the authority of other authors.

All these considerations occurred to me recently, when I undertook a critical review of my own earliest writings on Tipulidae. I found that, owing to the incomplete statements of authors, the verification of synonymies, including of course the search for their origin, was a much more troublesome task than I had anticipated. The fulfilment of this task led me to some results, which I had not expected, and which proved that the task had not yet been properly fulfilled by those who had gone through the work before me. These results I venture to communicate in the present paper. The explanation of all the difficulties met with during such a research may seem tedious, but it is, nevertheless, very instructive, as it shows the many pitfalls the most consciencious worker (as for instance, Schiner) may encounter through the carelessness of his predecessors. I am by no means sure of having always followed such rules myself, but subsequent experience impels me to impress them upon others. If careless adopting of synonymies, and reckless handling of rules of priority go on for some time, dipterology will soon reach a state when

> The dust on antique time would lie unswept, And mountainous error be too highly heaned For truth to over-peer!

(Shakesp.)

# 1. Dieranomyia autumnalis Stäger and D. stigmatica Schin.

These two species have been misunderstood by Schiner in his Fauna (II, p. 570). I feel a particular interest in them, because they were one of the subjects treated by me in my first entomological essay, published just forty years ago in the "Stettiner Entomologische Zeitschrift" 1854 (p. 203-213) under the heading of: Dipterologisches ans S. Petersburg. It treats of Tipulidae only, and contains, among other data, the description and the figures of the male forceps's of the two above-mentioned species.

In Schiner (l. c.) D. autumnalis Stäger is introduced as a synonym of D. modesta M., and Limnobia affinis Schum, is added as a synonym to D. stigmatica Meig. Now both of these synonymies cannot be accepted. Schiner has evidently not read Stäger's danish description of autumnalis attentively, although he quotes it; he probably relied on its latin rendering by Zetterstedt (X, p. 3905). Stäger (Dipt. Dan. p. 51, in Kroyer's Tidskr. III, 1840) gives a somewhat detailed account of the peculiar male forceps which makes my identification of the species absolutely certain. Compare, for instance the words: "the double obliquely-placed prolongation ending in a tuft of reddish hair", which is reproduced in my figure, l. c. Tab. I, f. 5, 6. Unfortunaly for Schiner this very passage is omitted in Zetterstedt's latin version, perhaps for the reason that never having seen a specimen ("Mihi non rite cognita", l. c.) he was afraid to mislead the reader by a wrong translation of the somewhat difficult passage. Such was, probably, the source of Schiner's error. A swedish male specimen is mentioned l. c. p. 3906, as a possible variety; but its identification seems very doubtful, because if it was a real male of Stäger's autumnalis, Zetterstedt certainly would have noticed its peculiar forceps, and thus would have been enabled to render in good latin Stäger's passage about it.1)

With *D. stigmatica* Meig. Schiner committed another error in adopting its synonymy with *affinis* Schum. He probably had only female specimens of the species, because otherwise he would have paid more attention to the words of Meigen (VI, 279) "After des Männchens dick, kolbig", would have mentioned this structure in his description, and, at the same time, would have noticed the absence of any mention of that kind in Schummel's description (p. 127) of his *affinis*, a difference which renders the assumption of a synonymy impossible. Schummel was a very careful describer; he had both

<sup>1)</sup> Since writing the above I have discovered two other passages in Zetterstedt, XIV, p. 6536 and 6538 (1860), which may also have misled Schiner: Glochina autumnalis Stäg, "Tautum pro varietate Limn. modestae Schum. a libero Barone Osten Sacken habetur," Stett. Ent. Z. 1854, p. 207, 211. Zetterstedt misunderstood my meaning. I spoke merely of some of the varieties of modesta, enumerated by Schummel, which might possibly have been specimens of autumnalis. The volume having appeared in 1860, Schiner must have received it during his work on the Fauna. This is another proof of the fact that Zetterstedt did not know autumnalis by sight. Verrall's assertion in the E. M. Mag. XXIII, p. 158 (1886) that "D. modesta is certainly not the species so called by O.S. Stett. Z. 1854", is due to a similar mistake, as Verrall acknowledged to me in litt.

sexes of his affinis before him, and would never have left unnoticed the extraordinary forceps of stigmatica (compare my figure of it in the Stett. Ent. Z. 1854, Tab. I, f. 7). All he has about it is "Hinterleib rostgelb . . . . Endglied weisslich". — Stigmatica Schim. and affinis Schum. not being synonyms, it remains to decide whether the former is the same as stigmatica Meig.? The descriptions being insufficient the type-specimens of Schiner in Vienna must be examined.

Stäger (1840) had a single female specimen from Denmark which he identified with Meigen's stigmatica. Zetterstedt (X, 3905) had no specimen whatever, but composed his description from the data of Stäger and Meigen (a very bad method, by the way); the description of the male forceps is entirely borrowed from Meigen: "anns of crassus, clavatus". I had abundant specimens of both sexes from the environs of St. Petersburg, and compared Stäger's and Meigen's descriptions, and for this reason my determination is probably correct. Meigen had received his specimens from v. Winthem in Hamburg, which is not very far from Denmark.

Professor Mik, whom I consulted on his experience with regard to stigmatica, very kindly sent me drawings of the male forceps's of a specimen which he has taken in Tirol, at an altitude of 6000', which has very nearly the same forceps as my stigmatica. The slight divergences may be due to my unskilful draughtsmanship. The altitude would also favor the opinion that it is a northern species. In my List of the Diptera of the environs of S. Petersburg (Otcherk etc. S. Petersburgh 1858, p. 142) I find that stigmatica was more common there than autumnalis. It will remain for austrian dipterologists to decide the question in determining what stigmatica Schin. is. About autumnalis these is no doubt whatever, the specimens of Mik and Verrall have the characteristic forceps figured by me and described by Stäger.

There is a passage in Bergroth, Verh. Z. B. Ges. 1888, p. 645, in which he expresses the same opinion as I about the erroneous synonymy of modesta and autumnalis in Schiner, and points out the difference between them correctly. It is to be regretted however that he does not say anything about the male forceps of the latter, without which one cannot be sure whether his autumnalis is really the same as Stäger's. — In the same paper Bergroth accepts Schiner's synonymy of stigmatica with affinis Schum, which, as I have shown, must be erroneous. He also asserts the synonymy of Dicranomyia Osten Sackenii Westhoff with both stigmatica and

affinis. But as the two latter are not synonyms, as I have just shown, the question remains open, and as Westhoff has described the female only, it will not be easy to solve it until the male is discovered.

The synonymy of the two species, as I conceive it, would stand as follows:

#### Dicranomyia autumnalis Stäger.

Glochina autumnalis Stäger, Dipt. Dan. p. 51, in Kröyer's Tidskr. III, 1840; O. Sacken, Stett. Ent. Zeit. 1854. — Denmark (St.); S. Petersb. (O.S.); Upper Austria (Mik); England (Verrall).

### Dicranomyia stigmatica Meig.

Limnobia stigmatica Meig. VI, p. 279; Stäger, I. c.; O. Sacken, Stett. Ent. Zeit. 1854 (Glochina). — Hamburg (Meig.); Denmark (St.); S. Petersb. (O.S.); Tirol, at 6000' altitude (Mik).

Zetterstedt's descriptions (X, p. 3905) ought to be quoted with the warning that, as I have shown, they are not based upon actual specimens; one of them is an incomplete translation from Stäger, the other a compound of statements drawn from two authors. About Dicr. Osten Sackenii Westhoff, D. stigmatica Schin. (not Meigen), and D. affinis Schum., I am not able to form any opinion.

In Verrall's List etc. (E. M. M. XXIII, p. 117) he followed Schiner in the matter of the synonymy of the two species. Specimens which he kindly sent me recently prove that he changed his view about *antumnalis*, and that he now agrees with me. About *stigmatica* he was even at that time doubtful (l. c. p. 159). The male specimen he sent me is certainly different from the male of the forceps of which I published a figure in 1854.

I believe Verrall is right in considering glabrata Walk, as a synonym of sericata Meig. The latter is the type of Meigen's spurious genus Glochina; like stigmatica and autumnalis it has a male forceps of a very peculiar structure, which has never been noticed in descriptions; it is not rare about Heidelberg in May.

There seem to exist a large number of undescribed *Dicranomyiae* in Europe, and also a considerable number of described, but not yet identified, species. It would be impossible to treat them monographically without careful drawings and descriptions of their male forceps's, taken from living or quite fresh specimens.

# 2. Dicranomyia pubipennis O.S. and pilipennis Egger.

I entirely agree with Verrall's opinion (l. c. p. 158) that these two names probably represent the same species. I came to the same conclusion when I caught specimens of pilipennis about Heidelberg. several years ago. I have no American specimens at hand, but my description of the N.-A. pubipennis, Monogr. IV, p. 73, and the figure of the wing, tab. I, fig. 2 agree exactly with the Heidelberg specimens. One of them has the discal cell open, and confluent with the third posterior cell, just as is often the case with pubipennis, and contrary to the usual confluence with the second cell, common among Dicranomyiae (Monogr. IV, p. 55 at top). The only difference I can discover is that the stigma of pubipennis (at least in the figure I have given) is bounded by the curvature of the tip of the first vein; in my specimens of pilipennis from Heidelberg the stigma reaches a little beyond that curvature, which is less marked and more approximate to the adjoining crossvein. I am also very much inclined to agree with Verrall's discovery that fusca M. is the earlier name for this species, and it is remarkable that the figure of the wing in Meigen I, p. 133, Tab. 4, f. 19, in the rounding of the tip of the first vein, and its exactly bounding the stigma, agrees better with the figure given by me in the Monographs, that with the specimens I caught near Heidelberg. So far so good; but Verrall has overlooked that Meigen VI, p. 274 has additional data about fusca, based upon specimens taken in both sexes. Instead of 6 lines, it is said to be only 4 lines long; the halteres are said to be "yellowish" and not "albi, capitulo fusco" as in the first description; the abdomen is described as "brown, with pale incisures, its end and the venter reddish yellow"; "wings with a dark-brown stigma"; "thorax ochreyellow with three shining black stripes" etc. - These characters do not agree with pilipennis Egg., and in some important points they disagree with the short description of fusca M., Vol. I. I believe that Meigen must have been mistaken in his identification of his fusca Vol. VI, with that of Vol. I; and I also believe that fusca Vol. I is the same as pilipennis Egg.; Meigen's figure of the wing, Vol. I, Tab. 4, f. 19, seems to me convincing. The best course to pursue, in my opinion, is to accept Egger's name for the European species, the identification of which is certain, and can be confirmed by existing types, and to formulate the synonymy as follows:

Dicranomyia pilipennis Egger.

Limnobia pilipennis Egger, Verh. Z. B. Ges. 1863, p. 1108.
Limnobia fusca Meig. I, p. 133, Tab. 4, f. 19 (1818) [Verrall;
O.S.] (nec non L. fusca Meig. VI, p. 274. — [O.S.]).

Limnobia turpis Walk., Ins. Brit. Dipt. III, p. 300 (1856) [Verrall].

- NB. "In conflict with another turpis Wk., Ins. Saund. Jan. 1856; under the doubt and carelessness I think both Walker's names had better cease." Verrall, l. c. p. 158.
- (?) Dicranomyia pubipennis O.S., Proc. Ac. Nat. Sc. Phil., p. 211 (1859); Monograph's etc. IV, p. 73, Tab. I, f. 2 [Verrall; O.S.].
  - NB. This American species is, according to both authors, very probably the same as the European *pilipennis* but its priority should not be accepted for the European species without further verification.

#### 3. Trochobola annulata Lin.

When I discovered this species near S. Petersburg I recognized at once that it was something new, but, with the reserve of a beginner, I sent it to Loew to describe. I was soon rewarded for my courtesy by the fact that I had to correct Loew, and not myself, when I ascertained in Linné's collection in London that it was the *Tipula annulata* Lin. and not a new species. (Comp. my article in the Stett. Ent. Zeit. 1857, p. 90-91.)

Prof. Mik has published an elaborate and very interesting paper in the Verh. Z. B. Ges. 1878, p. 617—632, entitled: Ueber die Artrechte von Trochobola caesarea O.S.1) This article contains a critical history of the career of Tipula annulata Lin. in the dipterological literature, as well as a vindication of Limnobia caesarea O.S. as a different species. I have carefully compared this paper with the original publications, and can bear witness of its completeness and exactitude. A few additional remarks may not be amiss here:

- 1. Linné's X<sup>th</sup> edit. 1758, p. 586 (which Mik did not have at hand) contains the same short diagnosis as the XII<sup>th</sup> edit., reproduced by Mik, l. c. p. 620. It is followed by the mention: Fn. Succ. 1122, the (wrong) quotation from Réaumur, and the: Habitat in Europa.
- 2. The *T. annulata* Scopoli, wrongly quoted by Linné X<sup>th</sup> edit. p. 973, 16, and many times wrongly referred to by Fabricius, is very probably *Poecilostola pictipennis* M., the slight discrepancies

<sup>1)</sup> In the Wien, Ent. Zeit. 1884, p. 65-67 Mik has published a careful description of the pupa of T. caesarea (both  $\mathcal{O}$  and  $\mathcal{P}$ ) with figures.

notwithstanding. I would, by all means, retain the current name, and add the other with a query.

3. The reference to T. annulata Lin. in de Villers, Car. Linnaei Entomologia III, p. 361 (1789), with the patria: Gallia australis V. (which means Villers), deserves a particular attention, when brought in connection with the specimen noticed by me in the v. Winthem collection in Vienna, labelled Lyon (comp. my article in the Stett, E. Z. 1857, p. 90, and Mik, l. c. p. 623, where this reference, in consequence of a lapsus calami, is incorrectly given). Villers lived in Lyon, and hence it may be considered as certain that the specimen in v. Winthem's collection was derived from Villers's. The latter died in 1810; v. Winthem although only 23 years old, in 1823 possessed already a considerable collection of diptera, which induced Meigen in that year to spend some time at his house (comp. Dr. Steetz's obituary notice on v. Winthem in the Stett, Ent. Zeit, 1848, p. 194-198). That Meigen did not mention annulata at all in his principal work may prove that v. Winthem acquired the specimen from Lyon later than 1823. At any rate Villers seems to have been the only one who found and identified annulata after Linné, and for this reason a reference to his work must be added the other references about that species. With this addition, I entirely agree with Mik's synonymy of this species, and also acknowledge the expediency of omitting all the other references from the works of Linné and of Fabricius. The synonymy will stand thus:

#### Trochobola annulata Linné.

Tip. annulata Lin., Fauna Suecica 17521); de Villers, Car. Linnaei Entom. III, p. 362 (1789).

Limnobia imperialis Loew, Linn. Ent. V (1851), p. 403,
 Tab. II, f. 13-15; O. Sack., Stett. Ent. Zeit. 1854, p. 212,
 Tab. I. f. 1. 2,

Limnobia annuluta Lin., O. Sack., Stett. Ent. Zeit. 1857, p. 90; Schiner, Fauna II, p. 572.

Discobola annulata Lin., O. Sack., Proc. Ent. Soc. Phil. 1865, p. 226.

Trochobola annulata Lin., O. Sack., Mon. N.-Am. Dipt. IV, p. 97 (1869).

It was upon the advice of Loew that I adopted *Trochobola* instead of *Discobola*, as there is a group of fishes called *Discoboli* 

<sup>1)</sup> I quote after Villers; Mik quotes the second edition.

Cuvier. The change of an inappropriate name immediately after its publication does not cause any inconvenience whatever.

- 4. There is a discrepancy in Linné's description in the "Fauna Suecica", which does not seem to have been noticed before; the diagnosis has: "femora annulo albo", the description: "femoribus ante apicem annulo nigro", which is correct. In Villers's reprint of the description (l. c.) the same contradiction is maintained. Is it merely a slip of the pen, or does the "annulo albo" refer to the paler space of the femur proximad of the dark ring? At any rate, when the diagnosis alone is reproduced, as it is in the X<sup>th</sup> and XII<sup>th</sup> edit. of Linné, and in all the references of Fabricius, it is most misleading, and nobody would recognize annulata in it.
- 5. Another confusion may be prevented by taking notice of Haliday's remark in the Stett. Zeit. 1851, p. 135, line 11 from top, that Linné had used the name annulata for a second time in his edit. XII, No. 28, but that this was a misprint for annotata, thus corrected by Linné in his own copy, existing in the Linnaean Society. This correction, excepting by Haliday, has never been published. Zetterstedt has nothing about it.

## 4. Erioptera trivialis Meig.

In my paper in the Stett. Ent. Zeit. 1854, p. 209 I established the synonymy of Limnobia ciliaris Schum, with E. trivialis M., an identification which was corroborated by a specimen labelled in Meigen's handwriting in the Museum of S. Petersburg. But I perceive now, that in the same place I committed a mistake in taking the specimens of trivialis with a closed discal cell for E, cinerascens Meig. When I said (l. c.): "Beide Beschreibungen sind unter sich vollkommen übereinstimmend", I did not discriminate between: "Grau mit brauner Rückenlinie" (on the thorax) in the diagnosis of trivialis, and "Hinterleib bräunlich mit dunkler Rückenlinie" in that of cinerascens. About the thorax of the latter, Meigen says: "hellgrau", without mentioning any dark stripe. About the antennae he says: "second joint remarkably stout" and gives a figure (Tab. 4, f. 6) which reproduces a development of this joint that certainly does not belong to trivialis. At that time I was confirmed in my error by the statements of Zetterstedt X, 3775, who, in his description of cinerascens Meig., apparently repeating Meigen's expressions says: articulo secundo praesertim grosso"; he also does not mention the dark thoracic stripe, and, these discrepancies notwithstanding, winds up with: "Valde similis E. triviali et praeter areolam discondalem

parum discrepat." What *E. cincrascens* of Meigen is, I do not pretend to decide, but it is evident that the name *trivialis*, based upon a recognizable description, and the comparison of an original type of the author, is preferable to the other. My error was reproduced by Schiner, van der Wulp, Verrall and lately by Bergroth.)

All these authors also adduce Limnobia sericea Macq., Dipt. dn Nord, I, p. 103 (1824) as a synonym of trivialis. In following up this synonymy I finally reached its source in Schummel (p. 152), but with the addition of vielleicht, which is omitted by his successors. Macquart's description contains enough to show that this synonymy is correct, but there is a passage in it, which requires an explanation. Macquart says: nervures comme dans l'espèce precédente, which is his No. 33 Limnobia ocellaris with references to Meigen, and to Tipula ocellaris Linné. Now both these references are wrong, because Macquart's L. ocellaris is no other than Erioptera (Acuphona) maculata Meig. Macquart (l. c.) distributes his Limnobiae in those with five posterior cells (p. 89, No. 1-12) and those with only four posterior cells (p. 94, No. 13-38). His L. ocellaris No. 33, and L. sericea (No. 34) are among the Limnobiae with four posterior cells, and for this reason Macquart could say about the latter "nervures comme dans l'espèce précédente". Tipula ocellaris Lin, has five posterior cells, in the sense either Schrank or Curtis (as Epiphragma picta), or of Meigen, Schiner and others (as Poecilostola punctata). Without this explanation, the synonymy of sericea Macq, with trivialis Meig, would remain doubtful, and this doubt may have induced Schummel's vielleicht. At present this synonymy may be considered as certain. About Tipula ocellaris Lin. a singular confusion has prevailed in the dipterological literature which will form the subject of the next paragraph.

About the position of *E. trivialis* in the system I said in my Studies II, p. 195 that it had some affinity with "Trimicra and Psiloconopa, in its general habit, and the character of its venation". Verrall was also quite right in noticing its resemblance to Symplecta (E. M. M. XXIII, p. 209). It agrees with it in the position of the great crossvein which is often, although not always, inserted a little proximad of the discal cell, and also in the slight sinuosity of the seventh longitudinal vein. It agrees especially with S. punctipeunis in having the posterior branch of the fourth vein forked, and not the anterior, as it is found in Symplecta similis and stictica, a difference which

In consequence of this new interpretation of cinerascens, what I said about it in my Studies etc. II, p. 195 at top, must be modified.

I have noticed in Monogr. IV, p. 171, and upon which Mik's genus Symplectomorpha is principally based (the absence of the supernumerary crossvein in the second submarginal cell is, in this instance, irrelevant).

The frequency of an open discal cell in *E. trivialis* may be a symptom of its relationship to *Trimicra*. Mr. v. d. Wulp, in Ann. Soc. Ent. Belg. 1893, p. 499 describes and figures a European specimen of *Trimicra* with an adventitiously open discal cell. In my Studies etc. II, p. 195 I have noticed that in New Zealand a species occurs in which the discal cell seems to be always open. Mr. Skuse mentions the same anomaly as occurring often among the Australian species.

All the forms, belonging to this group require to be studied more closely especially in regard of the structure of the male forceps: the proposed genus Symplectomorpha Mik, his assertion that Symplecta grata Loew is a Psiloconopa (W. E. Z. 1886, p. 318), the assertion in Nowicki's Beiträge etc. p. 17 (1873) that Gnophomyia pusilla Schiner is also a Psiloconova, and other forms which may be discovered yet; all this requires revision. It would be futile to introduce new genera, when the old ones are still insufficiently defined. Liov (I Ditteri etc. 1864, p. 42) proposed the generic name Platytoma for E. cinerascens M.: but the character upon which he founds it, the length and stoutness of the second joint of the antennae, proves that he established this genus merely upon the figure of the antenna given by Meig. I, Tab. 4, f. 6, just as Macquart, in the later period of his career, founded genera of which he had never seen a specimen, and merely upon statements which he had found in different writers. Besides, the name Platytoma is preoccuped by Dejean for a genus of Coleontera in 1833.

The synonymy of trivialis M., which for the present I shall continue to call Erioptera, but in the widest sense, may be set down as follows:

Erioptera (?) trivialis Meig., I, p. 112 (1818).

Limnobia ciliaris Schum., p. 151, 35 (1829). [O.S.]

Limnobia sericea Macq., Dipt. du Nord I, p. 103 (1824). [Schum.; O.S.]

(?) Erioptera cinerascens Walker (nec Meigen), Ins. Brit. Dipt. III, p. 275. [O.S.]

The species diuturna Wk. and grisea Wk. added by Verrall (l. c. p. 118) as synonyms, are very doubtful, because, in both descriptions, the basal joints of the antennae are called tawny, which is not the case with trivialis. However Walker is always distressing; in the Ins. Brit. Dipt. III, p. 274, in the analytical table, trivialis is

placed in the group "stigma none", while the description, p. 276 has: "stigmate fusco"!— The synonymy of these species in Zetterstedt and Stäger I leave to others to unravel; there is some confusion in their nomenclature to which I have alluded in the Stett. E. Z. 1854. E. cinerascens Walk. I. c. is very probably a rather indifferently characterized trivialis M. of the variety provided with a discal cell.

The passage in my Studies, II, p. 195, line 10 from top, beginning with: "whose synonymy with ciliaris" etc. and ending with: "requires confirmation", must be struck out, as there is not the slightest doubt

about this synonymy at present.

#### 5. Tipula ocellaris Lin.

In hunting up the references to *Tipula annulata* Lin. in the dipterological literature (comp. above, § 3) I became aware that the name of *T. ocellaris* Linné, Fanna Snec. 1751, has been, in various ways, misapplied to other species than Linné's original one.

Linne's description in the Fauna Succica, as I find it reproduced in Villers' edition (Lyon 1789, Vol. III, p. 362), runs as follows:

"Ocellaris, alis albidis maculis ocellaribus nigricantibus plurimis.

Descr. Media. Alae expansae, albidae, duplici serie ocellorum fuscorum, quorum margine exteriori adjacentes obscuriores.

Hab. In Europa; in Bressia V." (Bressia, in french Bresse, is a part of Burgundy; V. of course means Villers.)

I omit the references, as unimportant, except one, the only one which I also find in Linné, XII<sup>th</sup> edit. p. 973, 17 under *Trpula occllaris* (in the X<sup>th</sup> edit. this species is not mentioned):

Gadd, Satag. 87, which means (as I find in Hagen's Bibliotheca I, p. 260): P. A. Gadd (1727—1797), Observationes physico-oeconomicae in septentrionali practura territorii superioris Satagundiae collectae. Aboae, 1747, 4. p. 35, conf. Biblioth. Banks in the British Mus. I, p. 114. This reference is not accessible to me.

There are three European Tipulidae which, on account of the occilate spots on their wings can compete for the specific name occilaris Lin. One of them has been described by Linné himself as Tipula (Trochobota) annulata, and is therefore hors de cause. Of the two others, Epiphragma picta M. and Erioptera (Acuphona) maculata M., it is the former which is nearest to Linné's description.

As early as 1781 Schrank had specimens which he identified with *T. occilaris* Lin. (Ins. Austr. p. 425, No. 856). Quite independently of Schrank, Curtis in 1824 published a beautiful plate representing what he quite correctly considered as *T. occilaris* L.

(Brit. Ent. plate 50, *Limnobia ocellaris*). It must have been a mere inadvertence of his, when, in the letterpress appended to the plate, he mentions *L. picta* and *ocellaris* (*ocellata* as he has it, is a lapsus) as two different species.

How did it happen that this species, although recognized as the occillaris Linné by Schrank in 1781, and independently of him, by Curtis in 1824, has been, in all the modern works, called picta Fab. (1798)? In Schiner's Fauna (II, p. 551—552), the principal hand-book of european dipterology for the last thirty years, the species is called picta Fab., with occillaris Curtis (and not Linné) as synonym. And occillaris Linné is placed, with a query, as a synonym of the totally different Poecilostola punctata Meig.

The fault in this case was with Fabricius, who has reproduced Linné's short diagnosis of Tip. ocellaris, with the references, in all his works successively, without apparently knowing anything about it, just as he had done with Tip, annulata Lin, (comp. § 3 of the present paper). It was in 1798 that he finally received specimens of ocellaris Linné, but did not recognize them as such, and published them in the Supplement to his Entom. Syst. IV as Tip. picta n. sp. Meigen, who published his "Klassification" (1804) soon afterwards, recognized Fabricius's picta, which he had found in his own locality, and redescribed it (l. c. p. 60) with a reference to Fabricius, as picta with the addition: "it is found in summer on meadows and along ditches, but not very often". In the same work (p. 74), among the species unknown to him, he has Tip. ocellaris, with references to Fabricius, Gmelin and Schrank, and with the remark; "must be very like picta". That they were identical does not seem to have occurred to him. Later, he has had the opportunity of examining Fabricius's types. In his Syst. Beschr. I, p. 152 (1818) he says about ocellaris Lin.: "Fabricius retained Linné's diagnosis" (he means the mention of ocellate spots) "nevertheless in his collection it is the Limnobia punctata which bears the label ocellaris; Schrank's Tipula ocellaris Lin. (Ins. Austr. 856) is doubtful, but probably Limnobia picta". If Meigen had examined and compared critically Linné's and Fabricius's statements about ocelluris, he would have easily discovered that Fabricius never recognized ocellaris Lin., that, in fact, ocellaris Fab., as a scientific concept, had no existence, and that Fabricius's picta was the very same ocellaris, which Schrank had recognized long ago. Meigen should have paid no attention to the pretended type in Fabricius collection, mislabelled ocellaris, and representing punctata which has nothing in common with Linné's description. That Schiner did not notice this mistake

is strange. Instead of adding to the synonymy of punctata (Fanna, II, p. 552) the obscure and misleading reference to "Meig., l. c. I, p. 152, 65 (ocellaris).—? Linné, F. Succ. (Tip. ocellaris)", he should have simply stated that what Meigen saw in Fabricius's collection was punctata, erroneously labelled ocellaris Lin.

In Walker, Ins. Brit. Dipt. III, p. 288, the references to punctata and picta are reproduced from Meigen and Schiner. Zetterstedt X, 3817 follows Meigen in regard to punctata, but makes it worse by quoting occllaris Schrank with a query and occllaris Fabr., Syst. Antl. 29, 27 also with a query! On the next page, in describing picta it never occurs to him that it is the true occllaris Lin. Macquart, S. à B. I. p. 96 about these two species merely refers to Meigen.

It will not be amiss also to state that Schiner (Fanna, l. c.) should have quoted punctata Schrank, Ins. Austr. 858 (1781) and Meig., Klassif. p. 61 (1804), and only after them Meig., Syst. Beschr. (1818). Meigen, in his principal work, habitually omitted references to his previous publication, and, in the present case Schiner, from this cause, overlooked that Schrank was the authority for punctata. Schiner in his Catal. System. Dipt. Europae p. 19, again repeats: Poecilostola punctata Meig. (syn. ocellaris Lin.), without any query! This has been copied hy many other writers (for instance Nowicki, 1873; Kowarz, Adatok, 1883 etc.). Verrall (1886) and Kowarz (Fliegen Böhmens, 1894) have it correctly punctata Schrank, but Verrall should not have added as synonym: ocellaris Meigen, which represents nothing (compare below).

The synonymy of the different interpretations of occilluris Lin. according to my opinion, now stands thus:

#### 1. Epiphragma ocellaris Linné.

Tipula ocellaris Linné, Fauna Suecica (1751); Schrank, Ins. Austr. 856 (1781); Limnobia ocellaris Curtis, Brit. Ent. 50 (1824).

Tipula picta Fab., Ent. Syst. Suppl. p. 550 (1798); Limnobia picta Meig.; Epiphragma picta Schin. [O.S.]

## 2. Poecilostola punctata Schrank.

Tipula punctata Schrank, Ins. Austr. 858; Limnobia punctata Meig., Classif. and Syst. Beschr.; Poecilostola punctata Schiner.

NB. The *Tipula occilaris* seen by Meigen (I, p. 122 and 152) in Fabricius's collection was merely a wrongly labelled specimen of *P. punctata*, and therefore must not be quoted *occillaris* Meigen, because this combination does not represent any scientific concept.

#### 3. Acyphona maculata Meig.

Erioptera maculata Meig., Classif. p. 51 (1804); Syst. Beschr. I, p. 1091) 1818); Trichosticha maculata Schin., Fauna (1864); Acyphona maculata O.S., Studies, II (Berl. E. Z. 1887, p. 193).

Limnobia ocellaris Macq. (non Linné), Dipt. du Nord, I, p. 103 (1824). [O.S.]

In a list of synonymies like this, Fabricius's successive references to Tip. ocellaris Lin. must be entirely ignored (just as those to Tip. annulata Lin. in my preceding paragraph No. 3), as they are merely copied from previous publications and represent no scientific concept whatever. For completeness's sake however I shall give a separate notice of them. The Tip. ocellaris Lin. appears in the following works of Fabricius:

- 1. Syst. Ent. 751, 19 (1775) with Linné's short diagnosis, and with references to Fn. Sc. 1751 and Syst. Nat. Habitat: Europa.
- 2. Sp. Ins. II, p. 404, 22 (1781), with the same diagnosis and references. The habitat this time is: in Europa boreali hand infrequens.
- 3. Mantissa II, p. 323, 24 (1787); diagnosis without any reference or locality.
- Ent. Syst. IV, 240, 30 (1794). Diagnosis and the same references as before: Habitat: Europa.
- 5. Syst. Antl. p. 29 (1805). Here Fabricius has on the same page, and in immediate succession, the pretended three european *Tipulae* with occllate spots on the wings:
  - No. 26. Tip. annulata Lin., about which he knew nothing (comp. my § 3); the ridiculous reference to Réaumur (Ctenophora) is, of course, added.
  - No. 27. Tip. ocellaris Lin. about which he likewise knew nothing; the reference to Schrank is produced.
  - No. 28. Tip. picta Fab., which he described without perceiving that it is exactly the same species as the preceding one.

Meigen erroncously places E. maculata among the species without discal cell. He has overlooked the crossvein which closes this cell.

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